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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/730,945

12/10/2003

Sugio Makishima

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11/21/2006

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EXAMINER

ALAM, FAYYAZ

ART UNIT

PAPER NUMBER

2618

DATE MAILED: 11/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/730,945

Applicant(s)

MAKISHIMA, SUGIO

Examiner

Fayyaz Alam

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to applicant's amendment/arguments filed on 10/10/2006. **This action is made FINAL.**

Claim Objections

Claims 2, 8, and 9 are objected to because of the following informalities: In **claim 2** replace "claim 3" with "claim 1" and replace "claim 3" with "claim 7" in **claims 8 and 9**. Appropriate correction is required.

Response to Arguments

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1 - 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Fukuda (U.S. Application # 2003/0040346)** in view of **Sladen (U.S. Application # 2002/0061767 A1)**.

Consider **claim 1**, Fukuda et al. clearly disclose a portable information terminal (read as portable terminal; see Abstract) with camera, comprising:

a case 10 (read as first housing) and a lid member 12 (read as second housing) which are linked to be displaceable (read as movably connected to each other) (see Figure 1A and [0083]);

an image pick up module (18) (read as image pickup device) is arranged in said case 10 ([0084]); and

an adapter optical system (23) (read as conversion lens; see [0085]) is arranged in the said lid member 12 (see Figure 1A),

wherein the optical axis of said image pick up module (18) and that of said adapter optical system (28) substantially agree with each other (i.e. identical) when the portable terminal is folded (first state where the first housing and the second housing are laid on each other so that a focal length of the image pick up module (18) is converted from a focal length when the portable terminal is not folded (second state where the first housing and the second housing are arranged differently from the first state) ([0091] and [0092]).

Art Unit: 2618

However, Fukuda fails to disclose portable terminal comprising a second conversion lens, and means for replacing said first conversion lens with said second conversion lens.

In the related field of endeavor, Sladen discloses array of mirror elements (714) (read as second, third, fourth... conversion lenses) which can change reflection characteristics by a use of thumb slider (706) (read as replacing means) thereby changing from a first mirror element (718) (read as first conversion lens) to second mirror element (718) (read as second conversion lens. In addition, the mirrors are slidably exchanged from one position to the other (read as sliding operation) in order to change the viewing angle (read as focal length of the image pickup device is converted into one of a plurality of lengths by selecting one of the first and second conversion lens) (see [0031 - 0033]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate the teachings of Sladen with that of Fukuda in order to provide efficiency and robustness to the camera system of a mobile phone where the camera feature in the phone would approach the functionality of a stand alone camera.

Consider **claim 2**, in view claim 1, Fukuda et al. clearly disclose a portable terminal with camera, further comprising of an audio transmitting (20) and receiving device (26) (see Figure 1A; [0084] and [0085]).

Consider **claim 3**, as applied to claim 1 above, Fukuda et al. clearly disclose the present invention, but fail to disclose a conversion lens with sliding operation in order to

Art Unit: 2618

vary the focal length of the image pickup device by selecting one of the conversion lenses.

In the related field of endeavor, Sladen discloses array of mirror elements (714) (read as second, third, fourth... conversion lenses) which can change reflection characteristics by a use of thumb slider (706) (read as replacing means) thereby changing from a first mirror element (718) (read as first conversion lens) to second mirror element (718) (read as second conversion lens. In addition, the mirrors are slidably exchanged from one position to the other (read as sliding operation) in order to change the viewing angle (read as focal length of the image pickup device is converted into one of a plurality of lengths by selecting one of the first and second conversion lens) (see [0031 - 0033]). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate the teachings of Sladen with those of Fukuda et al. in order to provide efficiency and robustness to the camera system of a mobile phone where the camera feature in the phone would approach the functionality of a stand alone camera.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate the teachings of Sladen with that of Fukuda in order to provide efficiency and robustness to the camera system of a mobile phone where the camera feature in the phone would approach the functionality of a stand alone camera.

Consider **claim 4**, as applied to claim 1, Fukuda et al. clearly disclose the present invention, but fails to disclose that the conversion lens is a zoom lens.

In the same field of endeavor, Sladen et al. clearly disclose the mirror (read as conversion lens) is a zoom lens ([0037]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate the teachings of Sladen with that of Fukuda in order to provide efficiency and robustness to the camera system of a mobile phone where the camera feature in the phone would approach the functionality of a stand alone camera.

Consider **claim 5** as applied to claim 3, Fukuda discloses first and second housings are connected to each other by a hinge mechanism (see fig. 21 and [0006]).

Consider **claim 6** as applied to claim 3, Fukuda in view of Sladen disclose the claimed invention except for first and second housings are slidably connected together.

It would have been an obvious matter of design choice to implement the claimed invention in a phone with slidably connected housing since the applicant has not disclosed of how such a function would solve any problem proposed in the disclosure.

Therefore a person of ordinary skill in the art can effortlessly combine the claimed invention with sliding phone in order to present a different physical characteristic at the same time not affect the functionality.

Consider **claim 8** as applied to claim 7, Fukuda fails to disclose a third conversion lens exchangeable, by the sliding operation, with said first and second conversion lenses, and wherein the focal length of the image pickup device is converted into one of said plurality of lengths by selecting one of said first, second, and thirds conversion lenses.

In the related field of endeavor, Sladen discloses array of mirror elements (714) (read as conversion lenses) where a third mirror element (722) (read as third conversion lens) can be used to exchange with the first and second mirror element (718 & 720) in order to slidably change the focal length. Furthermore, the said mirror elements can be selected using a thumb slider (706) in order to select a plurality of focal lengths (see [0031 - 0033]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate the teachings of Sladen with that of Fukuda in order to provide efficiency and robustness to the camera system of a mobile phone where the camera feature in the phone would approach the functionality of a stand alone camera.

Consider **claim 9** as applied to claim 7, Fukuda fails to disclose first, second, and third conversions lenses are discrete elements physically and optically separate from each other.

In the related field of endeavor, Sladen discloses mirror elements (718, 720, and 722), which are physically and optically separate from each other (see fig. 11 and 12; [0032]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate the teachings of Sladen with that of Fukuda in order to provide efficiency and robustness to the camera system of a mobile phone where the camera feature in the phone would approach the functionality of a stand alone camera.

Consider **claim 10** as applied to claim 1, Fukuda fails to disclose first and second conversion lenses are discrete elements physically and optically separate from each other.

In the related field of endeavor, Sladen discloses mirror elements (718 and 720), which are physically and optically separate from each other (see fig. 11 and 12; [0032]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate the teachings of Sladen with that of Fukuda in order to provide efficiency and robustness to the camera system of a mobile phone where the camera feature in the phone would approach the functionality of a stand alone camera.

Consider **claim 11** as applied to claim 1, Fukuda as modified by Sladen discloses the claimed invention except for an image capturing button on a rear surface of one of said first and second housing.

It would have been an obvious matter of design choice since placing an image-capturing button on the rear surface of the housing or anywhere else has no bearing on the functionality of the disclosed invention as long as there is an image-capturing button.

Consider **claim 12** as applied to claim 1, Fukuda discloses display section (16) (read as viewfinder) on the rear surface of the housing (see [0089] and fig. 1A).

Consider **claim 13** as applied to claim 1, Fukuda as modified by Sladen discloses the claimed invention except for the group of conversion lens consisting of a fish-eye lens.

It would have been an obvious matter of design choice to include a fish-eye lens since a wide-angle lens and zoom lens is already disclosed according to Sladen (see [0032 & 0037]). In addition, adding a fish-eye lens according to applicant's invention does not solve any proposed problems.

Consider **claim 14** as applied to claim 1, Fukuda as modified by Sladen discloses the claimed invention except for said first and second conversion lenses are mounted on a rotatable turret.

It would have been an obvious matter of design choice to mount the lenses on a rotatable turret since it does not solve any stated problem as disclosed by the applicant.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Fukuda (U.S. Application #2003/0040346)** and further in view of **Kaneko (U.S. Application # 2006/0229118)**.

Consider **claim 7**, Fukuda et al. clearly disclose a portable information terminal (read as portable terminal; see Abstract) with camera, comprising:

a case 10 (read as first housing) and a lid member 12 (read as second housing) which are linked to be displaceable (read as movably connected to each other) (see Figure 1A and [0083]);

an image pick up module (18) (read as image pickup device) is arranged in said case 10 ([0084]); and

an adapter optical system (23) (read as conversion lens; see [0085]) is arranged in the said lid member 12 (see Figure 1A),

wherein the optical axis of said image pick up module (18) and that of said adapter optical system (28) substantially agree with each other (i.e. identical) when the portable terminal is folded (first state where the first housing and the second housing are laid on each other so that a focal length of the image pick up module (18) is converted from a focal length when the portable terminal is not folded (second state where the first housing and the second housing are arranged differently from the first state) ([0091] and [0092]).

However, Fukuda disclose the claimed invention except for first and second housings are slidably connected together.

In the related field of endeavor, Kaneko discloses first and second housing slidably connected (see fig 6).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Fukuda with the teachings of Kaneko in order to merely implement the invention in a phone with a different type of physical configuration.

Response to Arguments

Applicant's arguments filed 10/10/2006 have been fully considered but they are not persuasive.

Applicant argues that the newly amended claims are not readable according to Fukuda. The examiner upholds the rejection on the newly added and amended claims. Please refer back to "Response to Amendment" section above.

Furthermore, applicant argues that the "mirrors" as disclosed by Sladen are not equivalent to "conversion lenses" as disclosed by the applicant. Examiner maintains his stance on the equating of mirrors to conversion lenses since they both have same optical characteristics and are able to solve the same problems. In addition, the applicant fails to disclose in specification as to why the use of conversion lenses would be more advantageous over mirrors.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Art Unit: 2618

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the

Art Unit: 2618

Examiner should be directed to Fayyaz Alam whose telephone number is (571) 270-1102. The Examiner can normally be reached on Monday-Friday from 9:30am to 7:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Fayyaz Alam

October 30, 2006

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